

REMARKS

Claims 1-20 are pending in the application, of which Claims 1, 10, 13, and 18 will be independent claims upon entry of this Amendment. Claims have been rejected under 35 U.S.C. 102(b) and under 35 U.S.C. 103(a). Those rejections are respectfully traversed. Reconsideration is requested.

Independent Claims 1, 10, and 18 have been amended. Support for the amendments to Claims 1, 10, and 18 can be found in the Applicants' disclosure on at least page 3, lines 11-16; page 4, lines 20-28; page 5, lines 16-20; and page 7, lines 4-5 of the specification and in at least Figs. 2 and 3 as originally filed. Entry of the amendments is respectfully requested.

Dependent Claim 13 has been rewritten in independent form and includes the elements of Claims 10 and 13 as originally filed.

Rejections under 35 U.S.C. 102(b)

Claims 1-5, 7, 9-13, 15, and 17-20 have been rejected under 35 U.S.C. 102(b) as being anticipated by Kam *et al.* (U.S. Pat. No. 6,754,208, hereinafter "Kam").

Summary of Claimed Invention and Cited Reference

Before discussing the cited references, a brief review of an example embodiment of the Applicants' disclosure may be helpful without limiting the claims. The example embodiment is directed to a method and system for adding cross connect capacity to a network using a plurality of transport switches, and without using tandem ties between the transport switches. Referring to Fig. 2 of the Applicants' disclosure, a given hub 115 includes local switches 220 that handle traffic, and at least two transport switches 210-1, 210-2 that groom the traffic for the local switches. One transport switch 210-1 performs inbound grooming (i.e., separating high-speed traffic streams into comparable lower speed traffic streams) for the local switches 220, and the other transport switch 210-2 performs outbound grooming (i.e., packing the lower speed traffic streams into higher speed traffic streams) for the local switches 220. (*See Applicants' specification, page 4, line 26 – page 5, line 5.*)

The local switches of one example embodiment extract payloads from the inbound traffic from a first transport switch 210-1, determine destinations for the payloads, and transmit the

payloads to their respective destinations. Outbound traffic coming back through the local switches is transmitted via a second transport switch 210-2. In certain embodiments, the local switches are protocol switches that switch traffic of a particular protocol. For example, a local switch may be a voice switch that handles the necessary phone connections to enable a phone call. (See Applicants' disclosure, page 3, lines 11-16; page 4, lines 20-28; page 5, lines 16-20; page 7, lines 4-5; and Figs. 2 and 3.)

Turning to the cited reference, Kam discloses a method and apparatus for spreading traffic through a three-staged Clos switch network having an ingress stage, a middle stage, and an egress stage. With reference to Fig. 2 of Kam, the ingress stage 202 separates input signals into a plurality of component signals. Kam then spreads the component signals over and through the mid-stage switches 204 to the egress stage 206. In spreading the traffic over the mid-stage switches, Kam sequentially evaluates each mid-stage switch to determine whether a connection between the ingress stage and the egress stage through the mid-stage switch exists, and whether that connection has a sufficient amount of spare bandwidth to support the component signal. It should be noted that the mid-stage switches 204 of Kam receive signals from only the ingress stage 202 and send signals to only the egress stage 206. Thus, the mid-stage switches of Kam differ greatly from the local switches of the present application because, unlike the local switches of the claimed invention, Kam's mid-stage switches do not receive traffic from or transmit traffic to sources or destinations other than the ingress and egress stages of Kam. (See Kam, col. 4, line 42 through col. 5, line 57, Fig. 2, and Abstract.)

Independent Claims 1, 10, and 18

The Office asserts that the ingress stage of Kam (ref. num. 202 of Fig. 2) satisfies the originally claimed element of "*a first transport switch that grooms inbound traffic for at least one local switch*" and that the egress stage of Kam (ref. num. 206 of Fig. 2) satisfies the originally claimed element of "*a second transport switch that grooms outbound traffic for the at least one local switch,*" where the mid-stage switches of Kam (ref. num. 204 of Fig. 2) are considered to be the "*at least one local switch,*" where the above cited elements are as originally claimed in independent Claim 10, and as similarly originally claimed in independent Claims 1 and 18.

As presented above, because the mid-stage switches of Kam only switch signals from the ingress stage to the egress stage of Kam, the mid-stage switches do not transmit the signals to destinations other than the ingress and egress stages of Kam's network, and do not receive signals from sources other than the ingress and egress stages of Kam's network.

As such, the mid-stage switches of Kam are not switches that *"transmit[] the inbound traffic to at least one destination other than the multiple transport switches"* and that *"receive[] [outbound traffic] ... from at least one source other than the multiple transport switches"* as now recited in independent Claims 1, 10, and 18. Moreover, because the purpose of Kam's network is to spread an input circuit through the network such that the network has an extremely small blocking probability, one skilled in the art would not modify the network of Kam to include switches such as the local switches of the claimed invention because such a modification would have a negative impact on Kam's low blocking probability.

Therefore, independent Claims 1, 10, and 18 are now believed to be novel and nonobvious over the cited reference.

Independent Claim 13

Dependent Claim 13 has been rewritten in independent form and includes the elements of Claims 10 and 13 as originally filed. Applicants respectfully submit that Kam does not teach or suggest that the local switches are protocol switches, as recited in Claim 13.

Applicants disclose on at least page 4, lines 20-28, and page 6, line 27 through page 7, line 5, that the local switches may be protocol switches, which are a particular type of switch. Applicants disclose that the transport switches may groom the inbound traffic into different forms of lower-bandwidth signals for different protocol switches. For example, one particular type of lower-bandwidth signal may be a voice signal, which may be handled by a particular protocol switch that handles only voice signals.

Kam discloses no such protocol switches or protocol switching. The Office cites Fig. 2 of Kam in general as disclosing the claimed protocol switches; however, according to Kam's description corresponding to Fig. 2, Kam's switches are described only as being "switching modules." Neither Fig. 2 of Kam, nor its corresponding description discloses any such protocol switches as described in Applicants' disclosure.

As such, Kam does not teach or suggest “*a first transport switch that grooms inbound traffic for at least one protocol switch*” and “*a second transport switch that grooms outbound traffic for the at least one protocol switch.*” Therefore, independent Claim 13 is believed to be novel and nonobvious over the cited art.

Dependent Claims

Dependent Claims 2-5, 7, 9, 11, 12, 15, 17, 19, and 20 depend from either independent Claims 1 or 10 and, thus, include the elements presented above as being novel and nonobvious over the cited art. Therefore, Applicants respectfully submit that dependent Claims 2-5, 7, 9, 11, 12, 15, 17, 19, and 20 are novel and nonobvious over the cited art for at least the same reasons as presented above for independent Claims 1 and 10.

Furthermore, dependent Claims 2-5, 7, 9, 11, 12, 15, 17, 19, and 20 recite further elements that are neither taught nor suggested by the cited art. For example, Kam does not teach or suggest “*performing protocol switching at the at least one local switch,*” as recited in dependent Claim 5, for the same reasons as presented above for Claim 13.

As such, the rejections of Claims 1-5, 7, 9-13, 15, and 17-20 under 35 U.S.C. 102(b) are believed to be overcome. Withdrawal of those rejections is respectfully requested.

Rejections under 35 U.S.C. 103(a)

Claims 6 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kam, and Claims 8 and 16 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kam in view of Chu *et al.* (U.S. Pat. No. 6,947,629, hereinafter “Chu”).

Dependent Claims 6, 8, 14, and 16 depend from either independent Claims 1 or 10 and, thus, include the elements of either Claims 1 or 10 presented above as being novel and nonobvious over the cited art. Chu does not add to Kam the elements of Claims 1 and 10 presented above. Therefore, Applicants respectfully submit that dependent Claims 6, 8, 14, and 16 are novel and nonobvious over the cited art for at least the same reasons as presented above for independent Claims 1 and 10. As such, the rejections of Claims 6, 8, 14, and 16 under 35 U.S.C. 103(a) are believed to be overcome.

Accordingly, the claimed invention is not believed to be anticipated or made obvious by the cited art. Acceptance of Claims 1-20 is respectfully requested.

CONCLUSION

In view of the above amendment and remarks, it is believed that all claims (Claim 1-20) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

Patrick A. Quinlan

Registration No. 61,287

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

Concord, MA 01742-9133

Date: 